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Russia Tells Of Serums For Cancer

3/30/59
LONDON, March 29 (AP)

A Moscow broadcast this week quoted reports that Soviet scientists are developing serums that retard cancer. The reports cautioned against over-optimism.

Professor Ivan Maisky, director of the Soviet Institute of Experimental Biology, in a newspaper article quoted by Moscow Radio said:

"By approaching the problem from modern biological positions Soviet scientists are able to penetrate into the nature of cancer tissues.

"This also offers the possibility of controlling tumor growth and what is perhaps most important, opens up the prospect of obtaining cancer antigens.

"Similarly to the live vaccines used for the prevention of contagious diseases these antigens will be able to prevent the development of metastases (transference from one organ to another) of tumors.

"Another laboratory of the institute headed by Professor Victor Gostev is working on the development of anti-cancer serums and studying their effect on tumor growth in animals.

"It has been proved experimentally that such serums retard the development of cancer cells and tumors as well

to put on their own
 S.D.C. T.V.E.; further we
 have our program has been extremely
 successful. — Dr. D. H. H.

Moreover, it is timed to coincide with Sen. Estes Kefauver's antitrust subcommittee plans to stage a full-scale probe of drug field pricing practices.

Printed in blue letters on gum-backed paper, the chart is designed as a portable reference for the physician of U.S. Steel to keep in his pocket. It shows more of Los Angeles, California, than any other city in the United States.

Patents OK
In U.S. Cancer
Research

WASHINGTON, Aug. 5 (AP)—The Welfare Department today revised policies for patents on products or processes which may be developed by private industry under Government cancer research contracts.

The new policy permits an industry to patent and sell drugs or other chemical agents it develops under government-contract research work.

To protect the public, the ruling also gives the surgeon general authority to license, royalty-free, other manufacturers to produce the agents if he finds this necessary.

ADVISORS

The surgeon general must consider the advice of appropriate consultants and advisory bodies before determining whether it is necessary in the interests of public health to license additional manufacturers.

The cancer chemotherapy program to which the new policy applies is jointly sponsored by the National Institutes of Health, the American Cancer Society, the Damon Runyon Fund, the Atomic Energy Commission, the Veterans Administration and the Food and Drug Administration.

EXPANSION

Congress has appropriated \$30 million for the cancer chemotherapy program of the National Cancer Institute in the year ending June 30, 1959, compared with 25 million voted for last fiscal year.

A significant expansion of industry's role is planned, with Government contracts for that phase of research expected to total \$10 million this fiscal year. Last year the total was four million.

ILLEGIB

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Funds Sought on Behalf of Cancer Drug

CHICAGO, Feb. 24 (UPI)—Dr. Andrew C. Ivy last night launched a fund-raising campaign on behalf of the controversial cancer drug Krebiozen at a dinner attended by movie actress Gloria Swanson and Sen. Paul Douglas (D-Ill.).

The University of Illinois physiologist also warned that if the National Cancer Institute does not act to give the drug a "fair test," supporters of Krebiozen will seek legislation to force a test.

Ivy told guests at the testimonial dinner in his honor that a "far-sighted form of organization" will be organized to raise at least \$350,000 to finance production of more Krebiozen.

"At the present rate of usage, all the Krebiozen now available will be used up next summer," Ivy said, "and those patients now dependent on it will be left without it."

Ivy said studies of about 1,000 persons treated with the drug have convinced him that Krebiozen "is of value in the treatment of some cancer patients."

With further research and development, Ivy said, the drug "may turn out to be more effective and provide a key to finding the cure of all cancers."

"Who is to be responsible if we cannot continue with at least the present extent of Krebiozen's use?" Ivy asked. "Certainly not I."

"What sort of person would I be if I did not fight to keep this experimental work going on?"

Mr. Dillard
Please note the
best way to
control Krebiozen
would be to
emphasize a really
effective and ethical
approach to
cancer therapy.
Respectfully,
Dr. Citron

'Cancer Cure' Just Mineral Oil, Says Dr. Paul Kirk

By JOHN F. ALLEN

Krebiozen, the supposed anti-cancer chemical which has been the source of violent controversy for six years, is simply "a good grade of mineral oil and nothing else."

This startling testimony was offered here yesterday by Dr. Paul Kirk, noted University of California professor of criministics, and the man generally credited with sending Kiknaper Burton Abbott to the gas chamber.

Doctor Kirk, whose chemical assaying laboratory in Berkeley is rated as the best and most exhaustive in the world, testified under oath before the State Senate Interim Committee on Public Health, which is gathering facts for a proposed law to curb cancer quacks.

NOTHING BUT LAXATIVE.

After a detailed explanation of exhaustive chemical and light wave tests to which he exposed samples of Krebiozen, Doctor Kirk concluded:

"The net result of my studies of this material shows that Krebiozen is nothing more than pure Nutrilite—a laxative. In other words it is a good grade of mineral oil and absolutely nothing else."

At its Wednesday session the committee heard testimony from Dr. Andrew Ivy, of Chicago, whose advocacy of Krebiozen has caused his near ostracism from accepted scientific circles.

Doctor Ivy testified that Krebiozen was a biologically active chemical which had proved highly effective in controlling advanced human cancer.

BLAST AT AMA.

He accused the American Medical Association and other organized medical groups of conspiring to keep Krebiozen away from a suffering public and of issuing deliberately "false and fraudulent" reports about the substance.

Neither Doctor Ivy nor any one else connected with Krebiozen has ever released de-



DR. PAUL KIRK
Cancer Hearing Testimony

tails of its content or manufacturing method.

Doctor Ivy has said only that it is a substance derived from a cow disease called "lumpy jaw." This substance is then injected into horses. The final drug, he said, is a powder made from the blood of the injected horses which is then dissolved in mineral oil and given to patients with advanced cancer.

Furthermore, Doctor Ivy testified that it would be impossible to extract the basic chemicals from the mineral oil once they were dissolved.

RIDICULOUS, SAYS KIRK

Doctor Kirk first noted this bit of Ivy testimony and branded it as "ridiculous," pointing out that any chemist could do it easily.

However, he said, no matter how hard he tried to find something in the mineral oil, he always came up with just Nutrilite, an old fashioned cathartic.

He testified that he received the Krebiozen he tested in six sealed ampules from Dr. Walter E. Batchelder, of San Francisco, a director of the cancer commission of the California Medical Association.

Doctor Batchelder received the Krebiozen direct from

While other tests run by the American Medical Association and similar groups have invariably failed to show that Krebiozen has any real anti-cancer effect, Doctor Kirk's was the first reported chemical analysis of the substance.

ANOTHER 'CURE.'

Doctor Kirk also reported on an incomplete analysis of another substance which has been largely regarded as the basis of quack cancer treatment: Muchorhcin, advertised as a cure by a Pittsburgh, Pa., group and used by some chiropractors in California.

So far, Doctor Kirk said, his analysis has showed the substance contains "lots of yeast, two kinds of bacteria, some fungi and perhaps a useless trace of some antibiotics."

Doctor Kirk's testimony stirred an angry buzz in the board of supervisors' chamber at City Hall, where the committee is meeting from an audience made up mostly of true believers in unorthodox cancer treatments.

The committee earlier heard from two other witnesses: Dr. Howard Bierman, scientific director at City of Hope, in southern California, and Dr. Andrew Small, of Dallas, a cancer research expert from the University of Texas.

SLAPS AT HOSSEY.

Both men took broad slaps at Harry M. Hoxsey, of Dallas, called the most notorious cancer quack of them all, who backed down on a promised appearance before the committee.

Doctor Bierman told how a 14 year old boy had come to the City of Hope after undergoing the Hoxsey treatment for leukemia and had died there after five months, despite heroic efforts to save him.

The treatment not only cost the boy's parents some \$400, Doctor Bierman said, but probably killed him months before he died. He testified that the

MEDICINE

What It Works'

The patient moves a lever in the wall and a light blinks. He moves another and he gets a prize. The process has done more for schizophrenics in the big Veterans Administration Hospital at Battle Creek, Mich., than any standard mental treatment used there.

This new device, an 8-foot-wide screen, was rigged up last year by the hospital's chief psychologist, Dr. Stewart G. Armitage. He was struck with the idea while watching a group of hopeless "backward" schizophrenics shuffling, mute and dream-like, through their daily routine. All of the patients, World War II veterans (average age 44), had spent at least nine years in mental institutions. Electroshock treatment, insulin shock, psychotherapy, and the new tranquilizers had been tried on each, but with no significant improvement.

Yet these men still used their motor functions—they walked about the wards, ate their meals in silence, smoked cigarettes. Dr. Armitage reasoned: Why not use their motor activities to rouse their interests, bring them back to reality? With the help of psychologists—Dr. Carl Brown of the University of Michigan and Dr. Gerald F. King of Michigan State University—Dr. Armitage constructed his ingenious apparatus and called it MUDRA—short for multiple differential response apparatus.

Returned: A 30-year-old veteran, mute for four years, stood before the board last week while a therapist asked him to move one handle one of four ways—up or down, right or left. When the patient moved the handle in the right direction, a green light appeared. The problem had been solved, and as a reward the patient was permitted to pull one of three other levers to release candy, cigarettes, or an outdoor picture projected on a screen. The long-silent man selected cigarettes as a reward, and, to the pleased surprise of the therapist, said: "Good morning. Have you a match?"

"We designed MUDRA to look like a pinball machine to get the patient's interest," Dr. Armitage explains. "It's a little little Goldbergish—but it works."

Three times a week for fifteen weeks, twelve of the VA hospital's most hopeless schizophrenics have stepped before the control board to flip levers and empty slots. After succeeding with the first one-lever problem, they move on to two-lever problems, and finally to "team games" in which one patient is asked to make a correct move with one knob while another makes a second move. "This requires talking and cooperation," said Dr.



MUDRA: The game that helps schizoids

Armitage. "It brings the men back into the world of reality."

A panel of therapists has pronounced nine of the twelve MUDRA-treated schizophrenics "noticeably improved" and three "slightly improved" since the gadget's installation. One man who had refused to leave the ward to take part in hospital activities suddenly became relaxed and quite sociable, and asked to go swimming. Another, who had been "unreachable" for six years, was discharged as cured.

Why does MUDRA work? In schizophrenia the victim suffers a profound sense of personal failure and, eventually, a total loss of self-respect. "Perhaps the men respond to the MUDRA problems because they have a chance to experience success on their own after long years of failure," said Dr. Armitage. "More important, I think, the machine shows that the schizophrenic has better control of his faculties than many think." At any rate, he can be reached, to some degree, through motor activities.

The next step? To get at the very roots of this most baffling of all mental diseases, Dr. Armitage and his VA associates are planning a long-range MUDRA-schizophrenia study. "Some doctors think

the schizophrenic has a built-in sensory defect—that he may not see, hear, feel, taste, or smell things as other people do," the psychologist concluded. "With MUDRA, we hope to prove—or disprove—this idea for good."

Cancer Vaccine?

Several hundred U.S. physicians who skeptically greet any mention of quick-relief serums for treating cancer listened last week to Dr. Gordon Murray of Toronto describe "some astonishing effects" in last-stage cancer victims injected with his own brand of horse serum.

So far, Dr. Murray admitted at the annual meeting of the American Academy of Orthopedic Surgeons in Chicago, there have been no cures with the serum, derived from blood cultures of horses injected with human cancers. But at

least ten terminal breast-cancer patients, and others with stomach and colon cancers are alive from two to three years after getting their first injections. All the patients previously had been treated without success, with the standard therapies—surgery, radiation, and drugs. From daily injections of Dr. Murray's serum the majority got pain relief, some even were able to go back to work.

Experimental: Dr. Murray's work is based on the theory, now accepted by many cancer experts, that the human body possesses a natural resistance to cancer. In his experiments, he hopes to determine whether his horse serum is capable of strengthening the cancer victim's built-in immunity to the disease. If so, the serum might take its place as an immunizing cancer vaccine—the goal of every cancer researcher.

Though the serum's immunizing power has not been proved, hundreds of cancer victims who read the Chicago reports were already clamoring for immediate treatment. To all of them Dr. Murray replied firmly: His tests are experimental, no more cancer patients can be accepted for treatment at his Toronto clinic; the serum is not yet available for use in other medical centers.

Periscoping Medicine

The theory that excessive salt is a primary cause of high blood pressure is bolstered by a new survey showing that Eskimos and some Northwestern Indian tribes, who eat no salt, have almost no hypertension. Victims of hemophilia have been helped by oral tablets of protease, enzymes that split the body proteins and help to strengthen the poor blood-clotting mechanism. Cholesterol, suspected by some researchers to be a cause of heart disease, now is also believed to hasten cancer growth. Studies show that as cancer cells multiply, the body produces increasing amounts of the fat-like substance.

... of the needle to an air pump set at minus 10 cm. of water. Air is withdrawn slowly to prevent paroxysms of coughing due to tracheal and mediastinal shift and reexpansion of lung parenchyma.

... miniature...
... when the lung is completely re-expanded, the base of the needle is taped to the chest wall, and negative pressure is maintained with pumps for twenty-four hours after air leakage has ceased.

Spontaneous Cancer Regression

Rarely, a malignant tumor disappears or recedes with inadequate treatment or none at all. Of more than 1,000 instances of such spontaneous regression reported in the literature, only 90 are adequately documented and histologically confirmed.

Over half of proved spontaneous regressions have been of neuroblastoma, malignant melanoma, chorioepithelioma, and cancer of the bladder. Cancers of the breast, uterus, and gastrointestinal tract disappear less often despite much more frequent occurrence.

Of metastatic lesions, documented only by roentgen evidence, chorioepithelioma, malignant melanoma, osteogenic sarcoma, and hypernephroma regress most frequently. Prolonged arrest of growth occurs most commonly in carcinoma of the breast, thyroid, and prostate. A prolonged latent period between primary tumor and metastasis or recurrence has been noted particularly with breast cancer and hypernephroma.

Several theories have been advanced to explain spontaneous regression. Hormonal alterations produced by the cancer itself may be responsible. Other tumors may be abnormally sensitive to radiation or chemotherapy and subside after doses which are usually inadequate. Allergic or immune reactions have been suggested as destructive of tumor cells. Fever or acute infection; compromised blood supply to the cancerous area; supposedly incomplete surgical removal which was in reality complete; inadvertent removal of the carcinogenic agent, for example, by diversion of urine; and incorrect histologic diagnosis are other possible factors.

Thelen C. Eytson, M.D. (University of Illinois, Chicago). Spontaneous regression of cancer. Connecticut M. J. 22: 441, 1958.

equipped tolerance, it is certainly possible to surmise that certain tumors can grow progressively in the face of weak immunity in the recipients.

THEODORZ H. HAUSCHKA (Roswell Park Memorial Institute, Buffalo, N. Y.). We have compared the rates of growth of a hyperdiploid chicken sarcoma and its tetraploid subline. These two lines are genetically comparable, since the latter line was derived from the former by immunoselection, and both of them have been propagated in the same stock of mice. To our surprise, we have found that the rate of growth for the two cell populations is exactly the same until a limiting mass is reached. This occurs sooner for the tetraploid subline because of the larger individual volumes of its cells. The lethal mass of tumor protoplasm per mouse that is synthesized by the tetraploid and the diploid is nearly the same, but the total number of cells per mouse is roughly twice as large for the hyperdiploid population, which is in keeping with the smaller individual cell volumes. This is interesting from the point of view of mass regulation by a host strain. Our observation has been confirmed by Klein and his collaborators at the Karolinska Institute, Stockholm, Sweden. These investigators, in their extensive growth data for various diploid and polyploid tumors, have found no correlation whatever between the rate of growth and histocompatibility.

ROBERT R. CITRON (Stockton, California) comments are directed to Jerome Syverton, Van Potter, and Theodore Hauschka. I should like to quote Syverton's remarks about the myriad of mixed antigens in cancer cells and Potter's observation that the function of lipoprotein is in urgent need of greater study. Hauschka's very interesting microphotographs dealing with the irregularities of surface between normal cells and cancer cells may also lend support to the apparent significance of lipid and lipoprotein in this area of medical research. All of the foregoing makes me wish to call attention to some work in this field that has been done for a number of years concerning cancer lipid as antigen, that is, an antigenic fraction derived from cancer tissue by means of fat solvent as, for example, by ethyl ether extraction techniques. This was reported recently at the meeting of the American Association for the Advancement of Science in New York, N. Y. I wish to emphasize this approach as a means of correlating the various ramifications that point to some common denominator present in cancer tissues that has specific antigenic activity, in contrast to components of normal tissue that have not. It does not appear that protein alone holds the solution to this problem, and I mention the concept of lipids and experimentation with them as means of throwing light on the controversial situation that has existed heretofore in this difficult field of cancer immunology.

Reference

1. Bocso, G. 1954. Association of tumor cells with bacteria. *J. Infectious Diseases* 46: 276-278.
2. Bocso, G. 1955. Recherches sur les relations entre les cellules tumorales et les microorganismes. *Ann. Inst. Pasteur* 91: 227-230.
3. Bocso, G. 1954. Observations sur les relations entre les cellules tumorales et les microorganismes. *Ann. Inst. Pasteur* 91: 231-234.

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